



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,625	10/07/2003	Tommy Grigsby	2002-IP-009328 U1 USA	5552
20558	7590	03/09/2006	EXAMINER	
KONNEKER & SMITH P. C. 660 NORTH CENTRAL EXPRESSWAY SUITE 230 PLANO, TX 75074			LE, THANH TAM T	
			ART UNIT	PAPER NUMBER
			2839	

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/680,625	GRIGSBY ET AL.	
	Examiner	Art Unit	
	Thanh-Tam T. Le	2839	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-88 is/are pending in the application.
- 4a) Of the above claim(s) 6,7,12,13,19,37-45,58-69 and 80 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,8-11,14-18,20-36,46-57,70-79 and 81-88 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/25/05; 9/26/05; 10/24/05 & 11/25/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Upon the election of species filed 11/08/04, claims 1-5, 8-11, 14-18, 20-36, 46-57, 70-79 and 81-88 have been examined, and claims 6-7, 12-13, 19, 37-45, 58-69 and 80 have been withdrawn.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5, 8-11, 14-18, 20-36, 46-57, 70-79 and 81-88 are rejected under 35 U.S.C. 102(e) as being anticipated by Cameron et al. (6,776,636).

Regarding claims 1 and 11, Cameron et al., figure 3 shows a system comprising a first fiber optic connector (18, since fibers 16 are connected to the connector 18, column 3, lines 28-30) positioned in a well; and a second fiber optic connector (40, since 16 is a fiber, therefore, wire 44 that connected to the connector 40 is also a fiber, and column 3, lines 5-8) operatively connected to the first optic connector after the first fiber optic connector is positioned in the well, a connection between the first and second fiber optic connectors being made after the first and second fiber optic connectors are positioned in the well (column 4, lines 47-49).

Regarding claims 2 and 20, figure 3, the first fiber optic connector is operatively coupled to a fiber optic line (16) that is configured to sense a downhole parameter.

Regarding claims 3 and 21, figure 1, the first fiber optic connector is operatively coupled to a fiber optic line (16) that has a sensor connected thereto (column 3, lines 13-17).

Regarding claims 4 and 5, the first and second fiber optic connectors are attached to a first and second downhole assemblies (12 and 14, respectively); and the first and second assemblies are attached to each other and rotationally oriented with respect to each other prior to operatively connecting the first and second fiber optic connectors.

Regarding claims 8 and 17, the first fiber optic connector is operatively coupled to a fiber optic line (16) extending longitudinally through a packer (a seal, column 3, lines 30-32).

Regarding claims 9, 18 and 27, the first fiber optic connector is operatively coupled to a first fiber optic line (16) positioned external to a tubular string (12 and 14), shown in figure 6A, and the second fiber optic connector is operatively coupled to a second fiber optic line (44) positioned internal to the tubular string (shown in figure 3).

Regarding claims 10, 14 and 22, the first fiber optic connector is attached to a tubular string (12 and 14); and the second fiber optic connector is attached to an assembly (36) received within the tubular string.

Regarding claim 15, the second connector is conveyed on a running tool through the tubular string.

Regarding claims 16 and 23, pressure applied between the running tool and the tubular string causes the first and second fiber optic connectors to operatively connect with each other (column 3, lines 66-67 and column 4, line 1).

Regarding claims 24-26, figure 3 shows the second connector extends into a third assembly positioned in the well and the third assembly is a gravel packing assembly (36).

Regarding claim 28, figure 3 shows the fiber optic line is positioned external to the second assembly in the third assembly.

Regarding claims 29 and 30, figure 3 shows the fiber optic line (44) is positioned external (a part of the line (44)) and internal (another part of the line (44)) to the second assembly (40) in the third assembly (36).

Regarding claim 31, the pressure applied to the first assembly/connector causes operative connection of the first and second fiber optic connectors.

Regarding claims 46 and 54, figure 3 shows an apparatus comprising:

- an outer housing (12 and 14) having a sidewall (not labeled) and a passage (34) extending through the housing;
- a first fiber optic connector (18) positioned in the housing sidewall; and
- a second fiber optic connector (40) received within the passage.

Regarding claim 47, the first connector is attached to a piston (30) reciprocally received in the housing sidewall.

Regarding claim 48, pressure applied to the piston displaces the first connector into operative engagement with the second connector.

Regarding claim 49, the second connector is attached to an assembly (36) received within the passage, pressure applied through the assembly causing the first and second connectors to operatively engage.

Regarding claim 50, figure 2 shows the assembly including a fiber optic line (44) operatively coupled to the second connector, the fiber optic line extending longitudinally within the passage.

Regarding claim 51, figure 2 shows the fiber optic line extending into a gravel packing assembly (36) attached to the housing.

Regarding claim 52, figure 3 shows an orienting profile (38), which rotationally orients the assembly relative to the housing, thereby aligning the first and second connectors.

Regarding claim 53, figure 2 shows an anchoring device (34) that releasably secures the assembly relative to the housing.

Regarding claims 55-57, multiple types of fiber optic lines (16 and 44) are coupled to each of the first and second connectors.

Regarding claim 70, a system comprising a tubular string (12, 14 and 20) including a passage (34) formed through the tubular string and a first fiber optic connector (18), and an assembly (36) received in the passage, the assembly including a second fiber optic connector (40).

Regarding claim 71, the first and second connectors are operatively connected to each other after the tubular string is positioned in the well.

Regarding claim 72, figure 3 shows the tubular string including a first orienting device (a seal that connected to 18), the assembly including a second orienting device (42), and engagement between the first and second orienting devices aligns the first and second fiber optic connectors.

Regarding claims 73 and 74, pressure applied to the assembly causes relative displacement between the first and second fiber optic connectors, thereby causing the first and second fiber optic connectors to operatively connect.

Regarding claim 75, the second fiber optic connector is operatively coupled to a sensor (44, a fiber) of the assembly.

Regarding claim 76, the sensor extends into a gravel packing assembly (36).

Regarding claim 77, the sensor monitors temperature distributed along the assembly.

Regarding claim 78, the sensor identifies a location of influx of water from a formation intersected by the well.

Regarding claim 79, the first fiber optic connector is operatively coupled to a fiber optic line (16) extending external to the tubular string.

Regarding claim 81, the assembly is positioned and displaced in the passage, thereby operatively connecting the first and second fiber optic connectors, after the tubular string is installed in the well.

Regarding claim 82, the assembly is secured to the tubular string when the assembly is received in the passage.

Regarding claims 32-36 and 83-88, the features in the method claims are identical to those in the apparatus claims; therefore, the method of making fiber optic connections in a subterranean well alone is not a patentable feature.

Response to Arguments

4. Applicant's arguments with respect to claims 1, 11, 46 and 70 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh-Tam T. Le whose telephone number is 571-272-2094. The examiner can normally be reached on 7:30-5:00.

6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TC Patel can be reached on 571-272-2098. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2839

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TULSIDAS C. PATEL
SUPERVISORY PATENT EXAMINER

TL.
02/28/06